

November, 1902 Vol. VI., No. 1

Price 5 Cents

The PHONO GRAM

THIRTY - FIRST NUMBER

THE LIBRARY OF
CONGRESS,

TWO COPIES RECEIVED

OCT. 27 1902

COPYRIGHT ENTRY

CLASS XXa No.

COPY B.

SUBSCRIPTION THIRTY CENTS A YEAR
SINGLE NUMBERS, FIVE CENTS

Published by HERBERT A. SHATTUCK
at NUMBER 83 CHAMBERS STREET NEW YORK CITY

Printed Monthly for those interested in the Arts of Recording and Reproducing Sound; also for those interested in Animated Pictures. ¶ Official Handbook of The Order of the Phonogram. ¶ A very Special Department will be devoted to all Questions and Answers relating to Phones, Graphs, Grams and Scopes. Correspondence welcomed by the Editor.



CONTENTS

Notes	3
The Deacon's Cow	18
The New Edison Phonograph	16
No Disk Machine Can Do This	5
New Edison Moulded Records	19
Short Talks About New Records	6
The Phonograph in the Advertising Field	18
Moulding and Mailing the Human Voice	7

Copyright 1902, by Herbert A. Shattuck

NOTES.

¶ I print in this number a very interesting article entitled, "Moulding and Mailing the Human Voice." It is due to the courtesy of the editor of PUBLIC IMPROVEMENTS that this is possible. Mr. Auld calls his periodical "A Magazine of Modern Resources" and it certainly lives up to its name.

¶ W. C. B. You ask for the words of a certain Record; stating in your letter that the words, as played by your machine, were not clear at all times. I find on very careful investigation that the Record in question has never been made by the Edison people. It is a Disk Record. I went to a store in the vicinity and asked to hear this particular Record, taking my pencil with me; but my ears are constructed no differently from yours, and I had to give it up. The singer who made this Record is well known in the business, but I think for the past year he has affected a kind of coon vibrate which seems to have affected him with locomotor ataxia of the larynx. Again, it may be that away back in his hidden and unspeakable past, he has been a demonstrator for some patent throat gargle. Be this as it may, he succeeds successfully in concealing what he thinks he is trying to say. My advice is not to buy any more Records by this particular artist, or any more Disk Records either. After all, the EDISON PHONOGRAPH is the only talking machine that gives complete satisfaction.

¶ I was over in Philadelphia the other day, and as I was walking along opposite the post-office to call upon a friend of mine in the business, I suddenly found the sidewalks blocked by a very good-natured crowd. To my surprise I found they were clustered around the store of my friend.

and after I had elbowed my way in from the street this is what I saw:

In the window was the picture of the hay-seediest, comicallest, old farmer that you ever saw. His grin fairly made you smile yourself, and each hair of his chin whiskers was standing on end with appreciation. This picture was framed with about half a ton of hay. There was nothing else in the window except a talking machine or two, with the exception of the following verse, which really and truly is a good one:

“You wonder why I’m smiling or what ’tis
makes me laugh?

Well, I went and sold my brindle cow and
bought a Phonograph.

My family are all happy, my wife, she is content;
And she tells me every evening my money was
well spent.”

¶ C. J. L. You ask for information on Record No. 118 by the Edison Concert Band, the title of which is “Indian War Dance.” I do not know what tribe of Indians practised this particular war dance or where it was taken. The composer of the music in question is Herman Bellstedt, Jr., of Cincinnati, Ohio, a musician of repute in the middle West and also in the East, where he at one time sat in the first cornet chair in Gilmore’s Band, under the direction of Patrick Sarsfield himself. He it is who is responsible for the creation referred to. Mr. Bellstedt, in the score before me, does not say whether the music is a faithful representation of the war dance used by any particular tribe of Indians, or whether it is only the impressions of the composer after witnessing the dances of the various tribes. I venture

the opinion, however, that as the composer is known to be a careful and conscientious student, the music is that in use by some particular tribe of the nation's wards. I also venture the suggestion that Bellstedt got his ideas for this Wild Indian War Dance after visiting the New York Stock Exchange on a busy day.

Sound principles are behind the sound reproductions of genuine Edison Phonographs.—
CHAPIN.

NO DISK MACHINE CAN DO THIS.

Phonograph Cheer to Far-off Friends.

Carrying with them more than a score of Phonographic records, messages to friends in the far East, the Rev. and Mrs. John Gowdy left Wilkesbarre, Pa., the other day for Foo Chow, China, where they will make their permanent home.

Several years ago the Rev. Gowdy left Pittston for China to engage in missionary work, and he was very successful. He received an appointment as instructor in the Anglo-Chinese College there, and three weeks ago here ended his journey of 18,000 miles to mark the close of a romance of his earlier life in West Pittston.

When it became known that the couple were to travel through the interior, they were asked to take messages to many friends, and to facilitate the undertaking and perhaps to bring the recipient thereof a trifle nearer home, it was decided to make Phonographic records, and this was done. They were packed in a case, and will be delivered as the missionary happens across his friends.

—From the Philadelphia *North American*.

SHORT TALKS ABOUT NEW RECORDS.

8078. **FACILITA, AIR AND VARIATIONS.** Cornet solo, played by Sig. A. Liberati. This standard composition is by J. Hartman and it is one of that writer's best efforts, being found in the repertoire of every cornet virtuoso. For our Record Mr. Liberati interprets the idea of the composer to the fullest extent, at the same time embellishing this selection with those "Liberatiisms" that have made him famous. Not without interest and result is the fact that Mr. Liberati, for our Records, is accompanied with the piano by his daughter, whose musical training by her father, and especially as an accompanist, permitted that artist the full scope of his musical fancies.

8110. **NANCY BROWN.** Sung by Wm. Redmond. This much talked of song was sung by Miss Marie Cahill in the "Wild Rose" all Summer. Miss Cahill is now duplicating her success with it in the "Sally in Our Alley" performance at the Broadway Theatre. Few songs in recent years have caught the popular fancy as has Nancy Brown.

8111. **IMPERIAL EDWARD MARCH.** (Sousa's latest). Played by the Edison Concert Band. Composed in the March King's well known style at the command of H. I. M. King Edward VII.

8118. The passing of summer has not diminished the popularity of our Record, "IN THE GOOD OLD SUMMER TIME," sung by Wm. Redmond. Every section of the country is still singing, "Strolling thro' the shady lanes in the good old Summer time," to composer George Evans' pleasing waltz melody.

MOULDING AND MAILING THE
HUMAN VOICE.

T



EACHING foreign languages with the aid of the Phonograph is one of the most practical ideas that is being popularized to-day and has been made practical on a large scale within the last few months—only since the invention of a duplicating process for moulding the wax Records of a foreign tongue. You see the fellow wants the voice to be natural and life-like, with none of those blasts that accompanied the Phonograph before this moulded Record came out.”

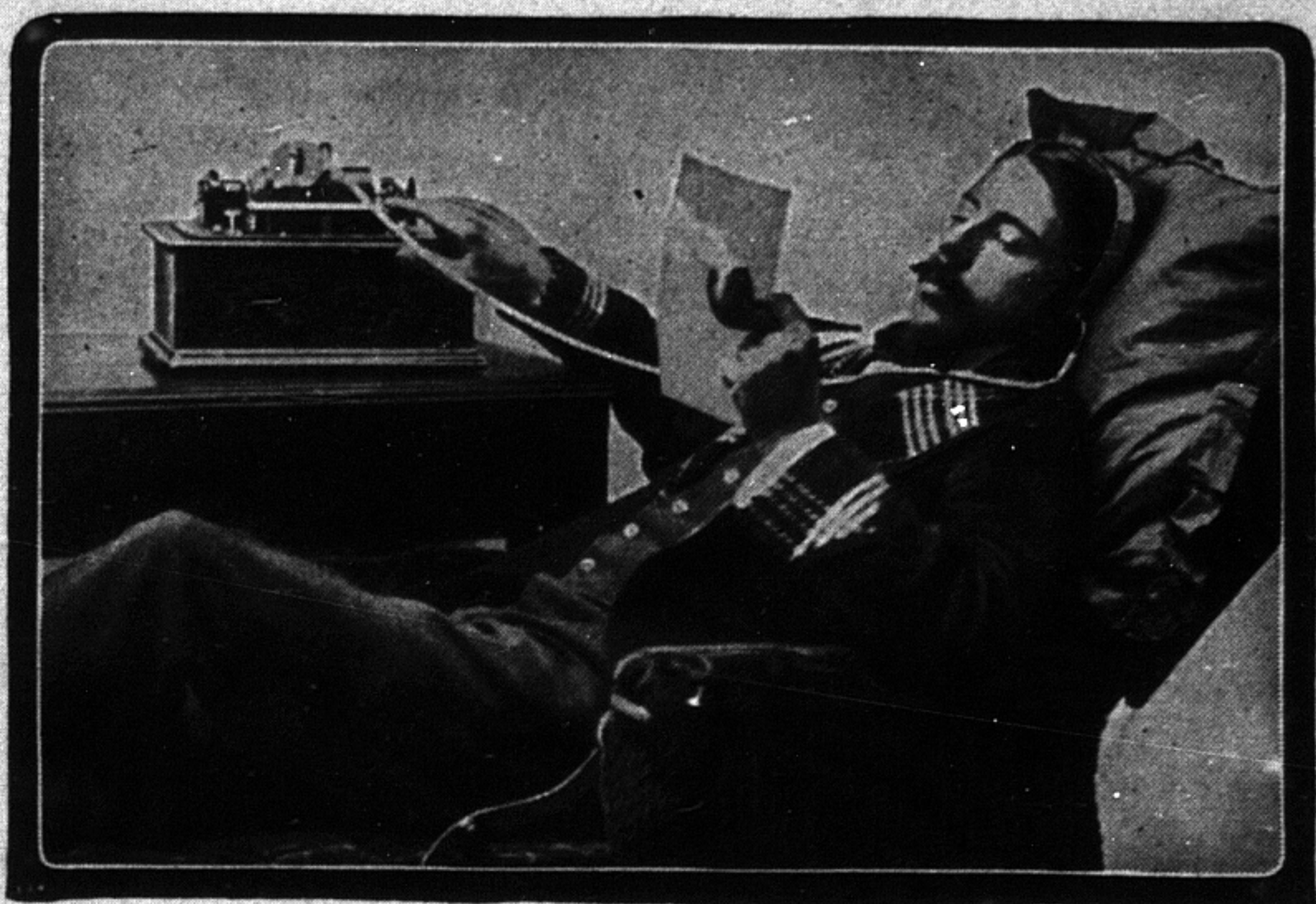
My friend’s remark interested me in the possibilities of language teaching with the aid of the Phonograph, and accordingly I remembered one of the most prominent institutions that do this teaching and planned to visit it.

My trip took me to Scranton, Pa., the home of the International Correspondence Schools, and here I found a double brick house near the main college building given up to this new method of language instruction. Being prepared for a medley of foreign tongues, I was not surprised to find this house a veritable Tower of Babel. In every room were Phonographs, and seated in front of them were foreign instructors, who listened to recitations made by the students. The view I obtained gave me my first impression of the success of this plan. Here, actually,

were the oral recitations by many students, and, with all the patience and interest that could be applied, these teachers were correcting the efforts of their pupils in every part of the United States to speak the foreign tongues.

“Can these pupils make good enough records for you to hear plainly?” I asked. I was requested to sit down before an instrument and listen to a recitation. The professor proceeded. “All we have to do, is to demonstrate a lesson, and the person is converted to our method. Now, we will give you the first lesson, such as we send to our students. You enroll in our schools, and wherever the mails reach we send you these printed lesson papers, and deliver to you a Phonograph and a complete equipment for language study. With the lesson papers go the Phonograph Records of the professor’s voice, giving the foreign pronunciation. The student hears these words and sentences at first through the hearing-tubes, while he reads the foreign and English text in the book—that is, he learns at once through the eye and the ear. Afterward the horn may take the place of the hearing-tubes, and the pupil may walk around the room while he fixes the foreign sounds in his memory. Repetition is the keynote of any successful teaching, and here we have an instrument built for it. It repeats patiently, accurately, tirelessly, once or a thousand times, a syllable, a word, a phrase or a sentence. Let the instrument repeat a lesson a dozen times, and the foreign sounds become so fixed in the memory that the listener is sure to know the correct pronunciation of the words, even if his tongue refuses to form the sounds.”

“Is there any regular time for sending in these exercises?” I asked. “No,” replied the professor; “our



students learn at their leisure and thoroughly at their ease. You think this a funny school, eh? But it is practical when you select ambitious students from the whole world. Of course, we urge application to the lessons, but we depend upon the natural interest of the student to send in the first lesson, and then we try to make our corrections and advice so attractive that another exercise usually comes along from him very soon."

"Now I will let you hear two Records of the voice, one made by the old process on soft wax and the other moulded by the new process in hard wax. When I have finished you will say that natural reproductions of the voice can be made, and that the Phonograph has been vastly improved."

Continuing to talk, the professor suggested that I look into the microscope he had fixed upon the table. "Notice that the tool vibrating in and out of the wax cylinder when the Record was being made has left the wax surface in



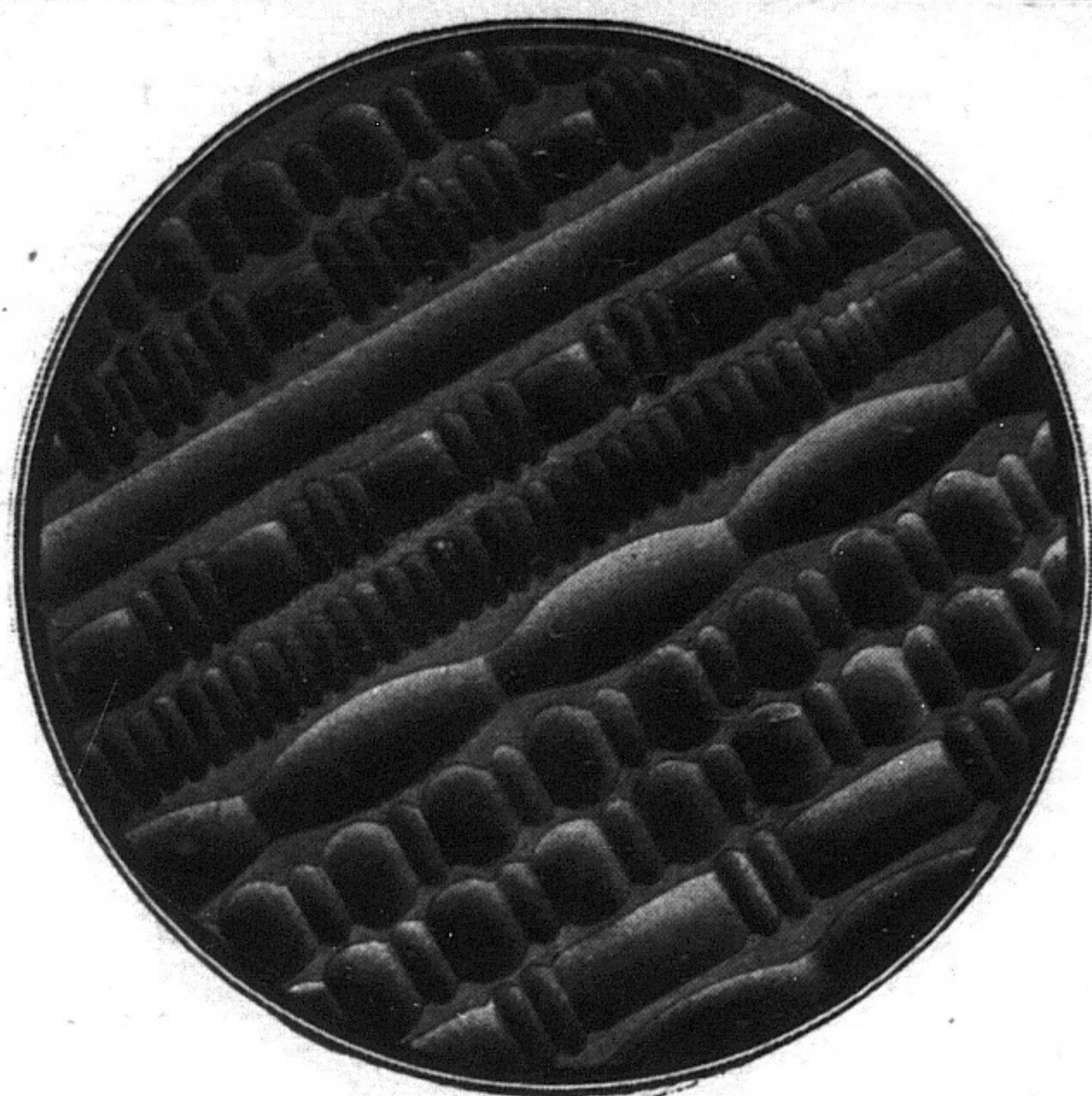
An old Record on soft wax, magnified twenty diameters, showing the cause of "blasts" and "screeches."

places and skipped instead of remaining imbedded in the wax and linking the vibrations closely."

I have here reproduced an illustration of this "blasty" soft wax Record as it appeared to me under the microscope. Where the cuts, or "scoops," are unconnected, there is caused the unpleasant sound or over-vibration of the reproducing tool, which was characteristic of the old Phonograph.

"And Here you have the I. C. S. Hard Wax Moulded Record!" The speaker said this with a genuine note of pride in his voice. It was plain that the new process Record was a satisfaction to the instruction department of this school at least.

Of course, I was anxious to hear the result of so much thought and skill, and my companion did not delay. "I, C. S. German Record Number Two" announced itself on



New hard wax high speed Moulded Language Record
magnified 20 times

the Phonograph ; then "*aber*" "*auch*," "*der Bruder*," came across the room as naturally as if the pleased German instructor, who stood near by, was personally exhibiting his best pronunciation.

To appreciate the perfection in which these sounds are recorded and reproduced, one must look at the delicate vibrations in the wax under the microscope. The illustration given will show the appearance of the surface of one of these new moulded language Records. Each vibration is perfectly recorded and linked, indicating that the reproduction will be pleasant and natural. It is wonderful to think that these indentations, which wind around the wax cylinder 100 threads to the inch, would amount to a string two hundred feet long if unwound. The average word requires seven inches of this string. All the delicate inflections of



the teacher's pronunciation are shown in the variety of cuts, which will be noticed.

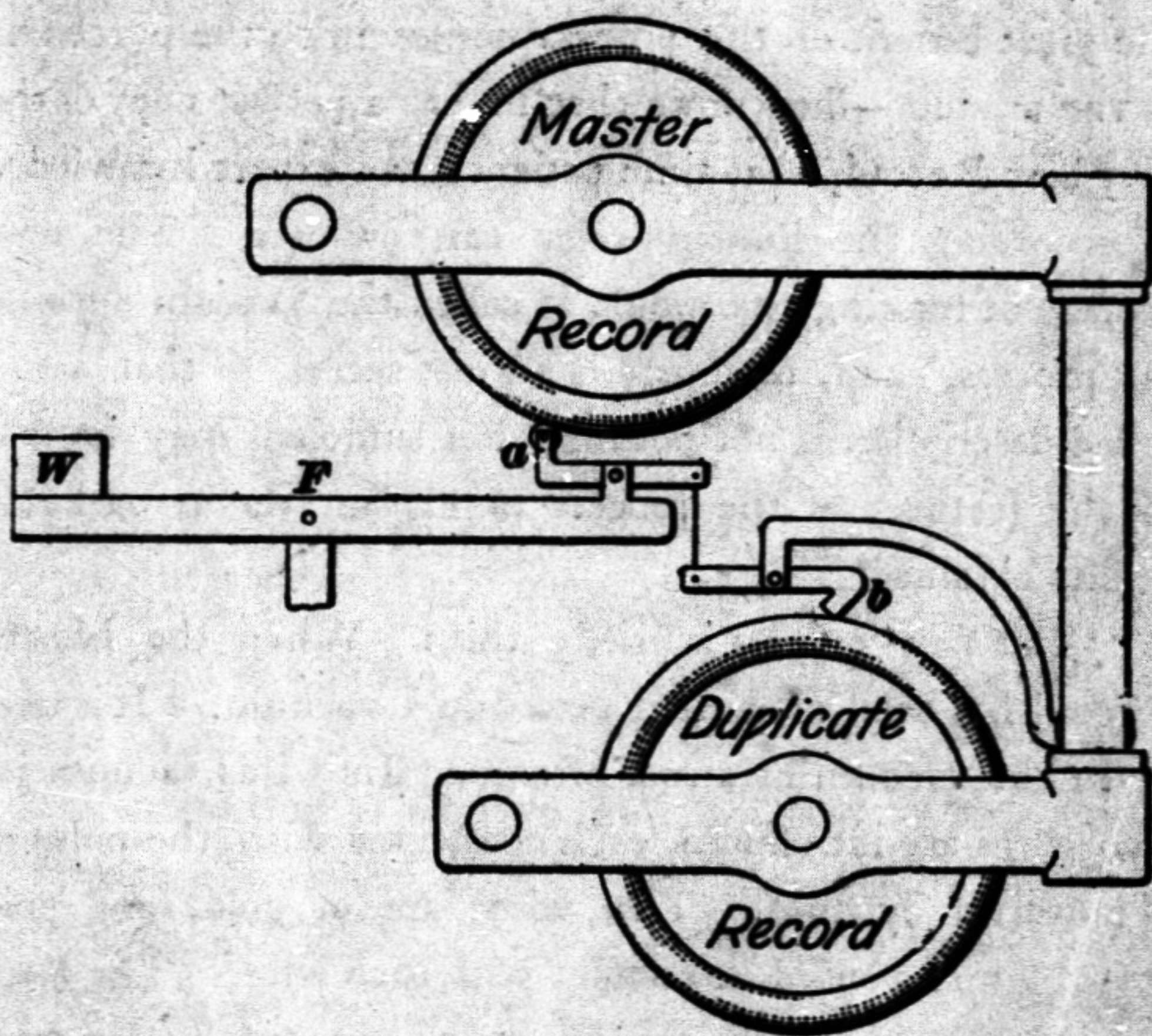
Placing another cylinder on the Phonograph, the Professor remarked : " This Record is from Mrs. C. M. Cole, 2060 Fell Street, San Francisco; it is her thirteenth lesson in French." A head-piece, with rubber hearing-tubes attached was placed on my head, and a book was handed me, from which I read a French exercise. Then, with a very good Parisian accent, the feminine voice came to my ears repeating, very naturally, the words I was reading—" *Dormez-vous bien ? Que faites-vous le matin ?* "

Stopping the instrument, the professor said : " Listen to that word—now repeat it with the machine." " *Dormez* " came each word, steadily repeating, as a little lever was manipulated on the side—it seemed so easy that without embarrassment I imitated it again and again. There are three hundred words on a cylinder, and at any time the

“repeating attachment” can be worked by a single lever to hear a word or a phrase over and over again.

“How are the I. C. S. Lesson Records made?” I asked.

“Formerly they were ‘copied’ or ‘duplicated,’” replied the Professor, “but now they are made by a moulding process. This will explain the old way;” and the speaker drew a sketch, which for this article, is reproduced more accurately



W is a weight which balances a train of levers with tools *a* and *b* at the free ends. *A* is a stylus with a rounded point for following the Master Record to be duplicated, and *b* is a sharp cutting tool for recording the same indentations on the blank wax cylinder below. When both cylinders

are revolved at the same speed on this double Phonograph, it is easy to see that the tools arranged as in the sketch will make a copy.

“But how do they mould Records?” I asked, deeply interested, “for that is what I most desire to know.”

“First, it is necessary to make a Master Record. If this Master Record is not perfect, of course the mould is not; so, chemically pure wax and a special machine are used to secure every cut and indenture with perfect accuracy, as you see it under the microscope. Here is where the great benefit of the process comes in to the purchaser of the product—he knows that he has a perfect copy of the very best Record, that time patience and expert knowledge of recording the human voice can produce. The new process of making the mould is called the ‘vacuum depositing process,’ and, of course is a great secret, so that a detailed description is not possible; but sufficient may be told of the features of the process to explain the remarkable results obtained.

“The new process is briefly this: When the Master Record has been made it is placed in a vacuum. It is held up in the vacuum by a sort of core. Into this vacuum jar two wires are introduced, each connected with the poles of a powerful dynamo. The wires are of gold, and gold strips are suspended in contact with each wire. The Record is so placed that it can be rapidly rotated by magnets placed outside of the vacuum jar. When the electricity is turned on and the wires charged, gold vapor is given off, both from wires and strips. This vapor strikes against the rapidly turning Record, and very soon on the face of the cylinder may be seen a deposit of gold in a very thin sheet.

The cylinder looks as if it had been out in a golden mist and become coated with golden moisture. The fine vapor of gold is thus driven into all the little indentations and markings—even the minutest—on the Phonograph master cylinder. The gold is so fine that it actually coats the cylinder as if it were dipped in water.

“When there is a sufficient deposit of gold on the cylinder it is taken out and placed in a copper bath. A deposit of copper one-sixteenth of an inch in thickness is electroplated on the surface of the gold. When this building up process is complete the inside wax master is removed, leaving the finished mould ready for the moulding process. The object in putting on the copper is to keep the gold from breaking down when other Records are taken from it.

“Having the metal mould, all that is now necessary in order to obtain a Record is to bring the molten wax in contact with its inside surface. The hot wax enters all the markings in the gold cylinder. When the wax cools and contracts away from the mould it can be dropped out, and is found to contain a perfect fac-simile of the Master Record on its surface.”

It is interesting to consider the possibilities of instructing an immense number of students from these improved instruments and Records. One mould will yield 120 perfect Records per day, and at this rate, with the continued demand, every school and home in the country that makes any pretense to advancement, culture or refinement will soon be equipped with a Phonograph language outfit for the study of one or more of the foreign languages.

Visitors seem to be always welcome at these schools;

they are sure to be treated courteously, and the trip is recommended to all for pleasure as well as for insight into a remarkable educational system.

There can be but one conclusion. To paraphrase the cry of Islam, "There is only one Talking Machine, and its name is the Edison Phonograph." —OPENEER.

THE NEW EDISON PHONOGRAPH.

One talking machine—the genuine Edison Phonograph—is recognized as the standard of excellence. Designed by the American Wizard of invention, it has all the improvements devised by him and is conceded to be the perfected talking machine, the one that makes you think the band is coming down the street, that you are listening to the noted singer, or that your friend is again telling that good story.

The New Edison Phonograph, equipped with the New Model "C" Reproducer, is far superior to all other talking machines. The beautiful oak cabinet of late design makes it most handsome. The powerful spring motor enables it to play many Records with one winding. The hinged cover, carrying the entire mechanism, permits of instant and convenient adjustment.

A marked improvement, stamping the Phonograph as the best talking machine, is the new Reproducer. This has a built up mica diaphragm, no glass to break just when you play that special Record your friends are anxious to hear, no more annoyance when you wish to amuse your family or entertain your friends. This built up mica diaphragm is exceedingly sensitive, giving a remarkably sweet tone, free from "blasting," to the reproduction.

The new Sapphire Reproducer ball is just the right shape. It fits the track of the Record, following faithfully every little curve or undulation and reproducing perfectly. No jumping the groove, no repetition, no echo, no harshness, no scratching noise, no metallic effect, nothing but a sweet natural toned reproduction of song, music, jest or story; bringing you face to face with the performer or artist.

The new recorder embodies all the latest improvements used at the Edison Laboratory, through the use of which, Edison Moulded Records owe their high perfection. With the new Recorder, perfect Records may be made at home.

The new high speed moulded Records are all that is needed to make this combination perfect. These are much harder than the old and can be handled without danger of spoiling the surface with finger marks. The moulded Records are made from and are exact copies of a permanent Master; equalling the Master in depth of cut, loudness, sweetness, clearness and natural tone. No more flaws, no more imperfect Records.

The purchaser who keeps abreast of the times wants the best in each line. Wide-awake lovers of melody, mirth and music know that the finest talking machine is the New Edison Phonograph. It will enliven your home, entertain your friends, interest your family and last a life time.

*When a man who is Famous the world over
backs the Phonograph with his Name, it
stands to reason it's a pretty good talking
machine.—OPENEER.*

THE DEACON'S COW.

Old Deacon White lost his cow—his brindle cow, with spots on her shoulder and flanks. He posted a notice to that effect in the grocery store at Punpkin Center; and, also tealizing the value of added publicity, he went to the Parson and asked him to include a mention of his loss among the other pulpit remarks.

The following Sunday, he listened to the Parson with attentive interest; his hand to his ear (being a trifle deaf). The Parson, however, did not start off with Deacon White's notice, but told the congregation of the postponement of the Willing Workers' meeting, on account of the sickness of Mary Ann Green. Her sickness, he assured the people, was not of a serious nature, but kept her at home. At this point the Deacon, who had listened attentively, evidently without catching the Parson's drift, chimed in "Ye might say Parson, that she's soun' in every part; ye can ersily tell her, if ya see her, 'cause she's a little hair rorbed off'n her leg an' a sore spot on her back."

Edison thinks—and his Phonograph talks..

THE PHONOGRAPH IN THE
ADVERTISING FIELD.

Another practical use for the Phonograph is in the advertising field. Where talking machines are now installed in so many households it will not be long before big concerns begin to give away records advertising their business. A comic song singing the praises of Dr. Blank's corn plasters, or a monologue in "Rube" dialect, telling of Uncle Ebenezer's wonderful recovery from rheumatism by

the use of some mineral water, might prove very popular. In these days when new methods of advertisting are met every day it is a wonder that the possibilities of the Phonograph have remained a virgin field.—*Boston Post*.

NEW EDISON MOULDED RECORDS

- | | | |
|------|---|---------------------------------------|
| 8208 | Russian Fantasia | Cornet Bohumir Kryl |
| 8209 | Down Deep in the Cellar | Cornet Bohumir Kryl |
| | NOTE —Mr. Kryl is the cornet soloist with Duss and his Band, and is now <i>en tour</i> with Bandmaster Innes. | |
| 8210 | Susie Woosie from <i>Weber & Fields</i> | |
| | <i>Twirly Whirly Coon-love song</i> Fa | |
| 8211 | In the City of Sighs and Tears | |
| | <i>Sentimental song with orchestra accompaniment</i> Har | |
| 8212 | The Tale of the Sea Shell | |
| | <i>Song from The Prince of Pilsen</i> T | |
| 8213 | In the Good Old Summer Time | |
| | <i>with bell chorus</i> Band E | |
| 8214 | The Rosary | <i>Sentimental song</i> T |
| 8215 | Under the Bamboo Tree | <i>Zulu love song</i> |
| | <i>from Sally in Our Alley</i> Co | |
| 8216 | I'm a Lady | <i>Comic song</i> |
| | <i>from Rogers Bros. in Harvard</i> Fa | |
| 8217 | Lucky Jim | <i>Male quartette</i> Lotus Quartette |
| 8218 | Down the Line with Molly | |
| | <i>Comic male duet</i> Co & Na | |
| 8219 | Jerry Murphy Was a Friend of Mine | |
| | <i>Comic male duet</i> Co & Na | |
| 8220 | The Shirt-Waist Band | <i>Comic male duet</i> Co & Na |
| 8221 | Columbia the Gem of the Ocean | |
| | <i>American national air</i> Band E | |
| 8222 | Rule Britannia | <i>British national air</i> Band E |
| 8223 | Whisper and I Shall Hear | |
| | <i>Song with violin obligato</i> Miss Nellie Thomas | |
| 8224 | For All Eternity Song | <i>Soprano</i> Miss Nellie Thomas |
| 8225 | The Last Wish (Abt) | <i>Religious song by basso</i> Sta |
| 8226 | Selection from <i>The Prince of Pilsen</i> | <i>Orchestra</i> P |

- 8227 Selection from *The Rogers Bros. in Harvard* Orchestra P
 8228 Selection from *the Emerald Isle* Orchestra P
 8229 March Medley from *Sally in Our Alley* Orchestra P
 8230 March Medley from *Weber & Field's*
Twirly Whirly Orchestra P
 8231 Way Down Yonder in the Cornfield (Alabama)
descriptive song with orchestra accompaniment T
 8232 My Maid from Hindoostan Coon love song Co
 8233 The Palms Tenor Geo. M. Stricklett
 8234 The Message of the Violet Sentimental song
from The Prince of Pilsen Tenor Geo. M. Stricklett
 8235 The Rajah March Band E
 8236 International Cake Walk Banjo Van Epps
 8237 Paint Me a Picture of Mamma
descriptive song with orchestra accompaniment Har
 8238 Down Where the Wurzburger Flows
Male Duet Co & Har
 8239 The Troubles of the Reuben and the Maid
from the Rogers Bros. in Harvard Co & Har
 8240 Come Down Ma Evenin' Star Sentimental song
with orchestra accompaniment from
Weber and Fields' Twirly Whirly T
 8241 Ragtime Episode Banjo Van Epps
 8242 The Absent Minded Man Comic song
from the Rogers Bros. in Harvard Fa
 8243 Einstein at the Race Track Talking Stl
 8244 Ravings of Jno. McCullough Talking Harry Spencer
 8245 The Toreador's Song with orchestra
accompaniment from Francis Wilson's Toreador T
 12729 Sonnenlicht, Sonnenschein
German song Emil Muench
 12730 Stændchen (Schubert) *German song* Emil Muench
 12731 Ch'siden Comic Hebrew song Frank Seiden
 12732 Das Goldene Land Hebrew song Frank Seiden

NATIONAL PHONOGRAPH COMPANY
 ORANGE, N. J., U.S.A.; N. Y. OFFICE, 83 Cham-
 bers Street; CHICAGO OFFICE, 144 Wabash Avenue